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June 30, 2006

**MEMORANDUM**

**TO: Signatories to the Early Action Compact for Ozone for the Front Range  
Metropolitan Area**

**Regional Air Quality Council**

Jim Scherer, Chairman

**Air Quality Control Commission**

Robert E. Brady, Jr., Chairman

**Colorado Department of Public Health and Environment**

Dennis E. Ellis, Executive Director

**Colorado Department of Transportation**

Thomas Norton, Executive Director

**Denver Regional Council of Governments**

Nancy N. Sharpe, Chairman

**U.S. Environmental Protection Agency, Region 8**

Robert E. Roberts, Regional Administrator

**Elbert County, Board of County Commissioners**

Stephen F. Stutz, Chair

**Larimer County, Board of County Commissioners**

Kathay Rennels, Chair

**Morgan County, Board of County Commissioners**

Michael Harms, Chair

**Weld County, Board of County Commissioners**


Rob Masden, Chair


**IN RE: Ozone Early Action Compact/Ozone Action Plan Progress Report of June 30, 2006**

In accordance with the terms of the Early Action Compact for the Colorado Front Range Ozone Control area, the enclosed report provides updates to the EPA regarding the Ozone Action Plan

for the Colorado counties of Denver, Boulder, Adams, Arapahoe, Broomfield, Douglas, Jefferson, Larimer and Weld. Included among progress items are:

1. The Air Pollution Control Division's Compliance Action Plan, submitted to EPA Region 8 June 2, 2006 for the oil & gas industry sector, and relevant compliance actions to date.
2. Colorado stakeholder meetings April 19, June 8 and June 28, 2006, to discuss oil and gas compliance issues, updated VOC emissions projections and proposed revisions to Air quality Control Regulation No. 7.
3. A brief discussion of additional control regulations under development for the EAC area and the state, to be proposed for rulemaking to the Colorado Air Quality Control Commission in August 2006 (hearing would be in November, 2006).
4. Passage of Colorado H.B. 1302, which allows for revisions to the state vehicle inspection and maintenance program (AQCC Regulation Number 11), providing the integrity of the Ozone Action Plan is preserved.

  
Ken Lloyd, Executive Director  
Regional Air Quality Council

  
Margie Perkins, Director  
Air Pollution Control Division

cc: Doug Lempke, Air Quality Control Commission  
Mike Silverstein, Air Pollution Control Division  
Lisa Silva, Air Pollution Control Division  
Ann Skinner, Colorado Department of Transportation  
Jeff May, Denver Regional Council of Governments  
Dick Long, EPA Region 8  
Tim Russ, EPA Region 8  
Jerry Dilley, RAQC

**Ozone Early Action Compact  
Denver Metro Area  
June 30, 2006 Progress Report**

**Introduction**

In December 2002 state and local agencies in the Denver area entered into an Ozone Early Action Compact (EAC) with the Environmental Protection Agency (EPA). The Compact is a Memorandum of Agreement between the Regional Air Quality Council (RAQC), the Colorado Department of Public Health and Environment (CDPHE), the Air Quality Control Commission (AQCC), the Denver Regional Council of Governments (DRCOG), the Colorado Department of Transportation (CDOT), and EPA Region 8. The EAC was amended in 2004 with additional signatories for Elbert, Larimer, Morgan and Weld Counties, areas potentially affected by ozone nonattainment.

The Compact entails a commitment to develop and implement an Ozone Action Plan in return for deferring any potential non-attainment designation for the EPA's 8-hour ozone standard. The EAC outlines several planning milestones (including progress reports every 6 months) that must be met, culminating in attainment of the 8-hour standard by December 2007. The June 30, 2004 Progress Report was prepared demonstrating that an Ozone Action Plan, emission control regulations, and supporting documentation had been completed and adopted by the State authority, the Colorado AQCC. The adopted plan and regulations were subsequently reviewed and approved by the Colorado State Legislature and the bill approving the plan and regulations was signed into law by the Governor of Colorado in May 2004.

The December 31, 2004 Progress Report addressed the disposition of comments received from the EPA in August 2004 regarding recommendations for revisions to emission control regulation, Air Quality Regulation No.7, to provide clarity and ensure approvability of the Ozone Action Plan, and a necessary change to the Ambient Air Quality Standards regulation to define the 8-hour ozone control area.

The June 30, 2005 Progress Report addressed progress towards implementation of Ozone Action Plan control strategies, the Denver Metro area's voluntary response to the 8-hour ozone issue and planning activities in the North Front Range to ensure cooperation in terms of possible Conformity issues and coordination of voluntary control programs, if necessary.

The December 31, 2005 Progress Report addressed progress towards completion of milestones, the Denver Metro area's voluntary response in summer 2005 to the 8-hour ozone issue and planning activities for 2006 and the activities and report of the Multi-Jurisdictional I/M Transition Committee in the North Front Range. An April 19, 2006 revision clarified modeling assumptions related to Regulation No. 11.

This June 30, 2006 Progress Report follows up on the Division's efforts initiated in November 2005 to quantify projected flash emissions growth beyond that anticipated in

the OAP, compliance with 2005 flash emissions reduction requirements and preparedness of the oil and gas industry for achieving required reductions in the 2006 ozone season. In addition, this report presents the results of legislation which restructures the I/M program and allows for changes as long as the integrity of the OAP is preserved.

### **Updates on Activities Related to the EAC**

#### **Stakeholder meetings and other actions and activities that have occurred since the December 31, 2006.**

The Air Quality Control Commission discussed or received updates and presentations on EAC issues related to removal and replacement of the I/M program and/or oil & gas compliance and flash tank emissions growth as follows:

- February 16, 2006 - Briefing on the Division's approach to review potential I/M removal or replacement strategies.
- March, 16, 2006 - Briefing and discussion of a matrix of I/M removal and replacement strategies. And, a briefing on efforts to quantify growth in oil & gas flash tank emissions and compliance during the 2005 ozone season.
- April 20, 2006 - Follow up briefings on analysis of I/M related strategies and oil & gas issues.
- May 17-19, 2006, AQCC Retreat, - Briefing and discussion of the impact of HB 1302 on the analysis of strategies to remove or replace the I/M program. HB 1302, if signed by the governor, sets the course for revamping the current I/M program, stressing clean screening strategies with high emitter identification, while preserving the EAC. And, a briefing on the oil & gas compliance rate (39% reduction in 2005, exceeding the 37.5% required reduction) and growth issues.

The Regional Air Quality Council received presentations and discussed the RAQC's summer 2006 Ozone Outreach program, oil & gas growth and compliance issues, I/M removal and/or replacement, and HB 1302 at regular bi-monthly meetings on April 6, 2006 and June 1, 2006.

The Air Pollution Control Division and the RAQC staff held a meeting with EPA staff on March 22, 2006 to discuss issues related to growth in oil & gas flash tank emissions beyond those estimated in the EAC Ozone Maintenance Plan, and efforts to quantify the 2005 compliance.

The Air Pollution Control Division held meetings with northern Front Range government agency staff members, industry representatives, citizens, and elected officials on March 14 and May 4, 2006 to discuss issues related to growth in oil & gas flash tank emissions beyond those estimated in the EAC Ozone Action Plan, and efforts to quantify the 2005 compliance.

The Air Pollution Control Division and the RAQC staff held a meeting with EPA, DRCOG, FWHA, and northern Front Range transportation planning staff

members on April 6, 2006 to discuss issues related to growth in oil & gas flash tank emissions beyond those estimated in the EAC Ozone Action Plan, and efforts to quantify the 2005 compliance.

The Air Pollution Control Division met with the Colorado Oil & Gas Association members on March 6, 2006 to apprise them of the need for an adequate response to required reporting of 2005 emissions, remind them of the compliance requirements for 2006 emissions, and to address the need for a solution to the increased growth in flash tank emissions beyond those estimated in the EAC OMP.

The Air Pollution Control Division held meetings on proposed revisions to Air Quality Control Regulation No. 7 for all interested parties to address additional controls for flash tanks on April 19<sup>th</sup>, June 8<sup>th</sup> and June 28<sup>th</sup>.

The Denver Regional Council of Governments received a briefing from staff on recent activities related to the EAC at their regular Board Meeting on May 17, 2006.

#### **Updates or revisions to modeling, technical analysis or planning activities.**

Summary of Modeling and Technical Analysis to Date (No change since 12/31/05)

#### Planning

##### **APCD Staffing Response to Oil & Gas issues**

In response to the growing concerns of increasing growth in the oil & gas industry in the EAC area and statewide, the APCD has established an 8-person (including 3 additional FTE) Oil & Gas Team. The team consists of permit, planning, technical services, small business services, and field services (inspectors) staff. Their charge is to track growth and compliance generally and for SIP purposes, develop permits and inspect facilities. Personnel transfers began in mid-April and were completed by the end of May.

##### **Assessment of Growth in Flash Emissions and Compliance Findings**

The Oil & Gas Team developed a report, Action Plan to Address Compliance Issues and Underestimation of VOC Emissions from the Oil & Gas Industry for the 8-hour Ozone Control Area, June 2, 2006, which was submitted to the EPA. The findings of the report are briefly summarized below.



As the APCD and RAQC staff were reviewing data related to EAC/OAP compliance in late 2005, there was concern that the level of compliance with the provisions of Regulation No. 7 would fall short and that estimated 2007 VOC flash emission levels were likely exceeded as early as 2004. Information gathered by the APCD since November 2005 indicates that unforeseen rapid growth in the oil and gas exploration and development industry has caused VOC emissions from condensate tanks to increase well above predicted levels, and that the 91 tpd controlled level anticipated in 2007 will be exceeded by approximately 33 tpd.

In November of 2005 the Division sent out 22 letters of inquiry to the oil and gas exploration and development companies in its database, pursuant to Colorado Air Pollution Prevention and Control Act Section 111(i). As of this writing it has been determined that compliance with the required 37.5% reduction by the industry overall was achieved in 2005. Based on industry reporting approximately 39% reduction in flash emissions (approximately 77 tpd reduced) was achieved. This was achieved because several companies over-controlled emissions, compensating for those that did not meet the reduction requirements. Supporting data are provided in the Action Plan, along with the action items to address deficiencies. It is important to note that notwithstanding the achievement of required VOC emission reductions for 2005 (77 tpd reduced) and the likely reduction of 47.5% for 2006, VOC emission levels will still exceed the 91 ton-per-day VOC threshold in 2007. Thus, additional controls are likely necessary.

The Action Plan describes the Division's efforts to ensure swift conformance to the Ozone Action Plan and Regulation No. 7 requirements, and development of additional VOC controls to offset the underestimated growth in the flash emissions. At this time BACT for condensate flash tanks in the 10-12 tpy range by the 2007 ozone season is being considered. A request for Public Hearing before the AQCC is scheduled for August with the Public Hearing scheduled for November.

#### **Progress towards completion of the December 31, 2005 EAC milestones**

##### Technology based controls

##### **Condensate Tank Emissions Controls**

The condensate tank emissions are commonly referred to as flash emissions, and are VOCs emitted during the condensate collection, storage, processing and handling at oil and gas wells. In 2002 there were over 3000 condensate tanks operating in the nine-county region, primarily in Weld County. In 2005 there were over 4000 condensate tanks operating in the region noted above.

Revisions were made to AQ Regulation No. 7, as part of the OAP to require a system wide 37.5% reduction in summer 2005 and a 47.5% reduction by the end of 2005 in preparation for the 2006 summer ozone season. Control technology is primarily flares, but some companies have installed vapor recovery systems.

Based on industry reporting on April 30, 2006, a 39% emissions reduction was being achieved industry wide during the ozone season and 32% (30% required) emissions reductions was being achieved in the off seasons. The industry was achieving the 47.5% reduction requirement by mid-May 2006.

As noted above under planning, additional controls prior to the 2007 season are being sought by the APCD to achieve the 91 tpd VOC threshold in 2007 flash emissions and offset the increased growth of uncontrolled emissions.

### **Revisions to Regulation No. 11 – Automobile Inspection and Readjustment Program**

There was some confusion created by the 12-31-05 report concerning the timing of the application of the clean screening disbenefit in the current program. A revision to the 12-31-05 report was issued on 4-19-06.

During its recently completed 2006 session, the Colorado General Assembly enacted HB 1302, Development of a Clean Screen/High Emitter program.

This bill requires the CDPHE and the emissions Contractor to develop an implementation plan by December 31, 2006, to be approved by the AQCC that provides for “The substantially increased use of remote sensing devices for the identification of vehicles whose emissions comply with the air quality criteria... and that exceed the air quality criteria as determined by the commission.”

The AQCC is directed to make best efforts to replace regular I/M with a high emitter program, and evaluate options for increasing the number of vehicles clean screened. The bill states that any such program must be acceptable to the EPA.

The CDPHE is directed to work with the emissions Contractor to develop a high emitter program acceptable to the EPA.

The bill terminates the vehicle emissions testing program effective December 31, 2010 “If the commission finds that this action does not violate federal air quality standards”

### **Program-based measures**

#### Ozone Outreach and Education Program - Let's Take Care of Our Summer Air

The Regional Air Quality Council (RAQC) has been working since January to plan and develop the eighth year of its Voluntary Ozone Reduction Program. The 2006 program will build upon previous years with the implementation of a large-scale awareness, education, and outreach program entitled “Let's Take Care of



Our Summer Air.” This comprehensive program is made possible with the help of numerous stakeholders from the Front Range region, including local, state, and federal governments, businesses, transportation organizations, non-profits, and citizens. Its goal is to increase awareness and understanding of ozone pollution and voluntary activities to help reduce ozone in the critical summer months. The 2005 enhanced effort was quite successful, raising general awareness of ozone pollution by 12 percent and the RAQC and its partners hope to further increase awareness and understanding of the issues this year.

The program encompasses large-scale outreach, advertising, and education components in order to raise public awareness and education about ozone issues and increase the number of people undertaking voluntary ozone reduction steps. In addition, it will assist with the promotion of the RAQC’s high-emitter outreach project, the Repair Your Air Campaign.

The three main components of the program – media advertising and outreach, citizen outreach, and local government outreach – are designed to complement the efforts of each component of the program to maximize effectiveness and are detailed below.

### **Media Outreach and Advertising**

The media components of the 2006 program will be the same as the 2005 program – utilizing television, radio, and outdoor communication channels. The RAQC will air the same commercials produced last year – one focusing on vehicles and the other on lawn equipment. The commercials will air over 400 times throughout a six week period this summer. The radio spots are 10- and 15-second spots that are read as part of the traffic reports. They will be read by live announcers nearly 400 times throughout a seven week period this summer. The same billboards will be used again this year and will rotate at nine different locations through the region from June through August. In addition to the paid media campaign, Suncor Energy has donated space for 250 signs located on top of fuel pumps located throughout the region. RTD also donated space for 50 signs located on the back of buses traveling throughout the region. KBCO 97.3 is implementing “EnviroMinutes,” which are 60-second public service announcements addressing ozone pollution. These spots are read by radio personalities so that they sound like programming, rather than commercials. They will be heard by radio listeners a total of 12 times throughout a six week period. This combination of paid and bonus advertising will reach a broad audience and engage citizens in individual actions they can adopt that will make a collective impact.

### **Citizen Outreach**

Events

The RAQC and its partners have hosted two community events this year to further educate citizens about ozone pollution. The first included 13 spring Car Care Fairs at which motorists throughout the region learned about the importance of vehicle maintenance through an interactive visual vehicle inspection performed by NAPA technicians. The second event was the Mow Down Pollution lawn mower exchange, which provided \$150 discounts on Neuton cordless electric lawn mowers. This summer, the RAQC will participate in other events, such as a Federal Highway Administration Transportation Fair, Bike to Work Day, and RideSmart Thursdays to promote alternatives to driving.

#### Web site

The RAQC is enhancing its ozone-dedicated web site at [OzoneAware.org](http://OzoneAware.org) to keep citizens engaged in taking action and making them aware of upcoming programs and events. The web site has both English and Spanish language versions. RAQC will be working with its partners to increase unique visitors to the web site over last year's total of 6,500.

As a new and fun way to encourage behavior change, the RAQC and its partners created the "Summer Chill" program. Designed as a pledge system, citizens throughout the Front Range region are encouraged to take a pledge to chill this summer and avoid the activities that contribute to ozone pollution. Citizens can mail in a pledge or can register online at [www.pledge.OzoneAware.org](http://www.pledge.OzoneAware.org). Several area businesses have donated coupons and prizes and periodic drawings will be held to award pledge participants. As a complement to the pledge program, the "Summer Chill" campaign is establishing "Chill Zones" such as ice cream or coffee shops, restaurants, and other places where people can get out of the heat and chill, reducing ozone causing activities.

#### Education

New for this year the RAQC and the Greater Metro Telecommunications Consortium (GMTC) worked to write, develop, and produce a 30 minute educational television program on ozone. The project was funded through a Community-Based Clean Air Grant awarded by the Colorado Department of Public Health and Environment as well as contributions by GMTC – a consortium of over 30 municipal cable access stations. The program provides a unique opportunity to deeply explore and explain the complexities of ozone formation and its health impacts. The program aired on all municipal cable access stations on June 14 and will be replayed throughout the summer. In addition, the program will be aired as part of Comcast's Metro Beat TV series July through September and will be available to Comcast subscribers on-demand.

#### Local Government Outreach

Local governments continue to be an integral part of the RAQC's ozone reduction efforts. For the 2006 program, the RAQC will implement two unique programs developed last year. The first is a fleet gas cap testing program to identify and replace faulty and missing gas caps on gasoline-powered fleet vehicles. To date, a total of five local governments are signed up to participate, including Arapahoe County, City and County of Denver, and the Cities of Englewood, Golden, and Louisville. The second program is a sub-grant program to encourage and increase ozone outreach and education efforts by providing small grants to a few select governments that developed creative outreach proposals. Proposals were recently evaluated and the Cities of Arvada and Aurora, Town of Castle Rock, and the Greater Metro Telecommunications Consortium will each receive \$2,500 to implement ozone outreach and education projects this summer ranging from a lawn mower exchange to a gas can exchange and general public outreach.